Abstract

In a semiconductor laser, at least one temperature sensor is disposed directly on or integrated in a semiconductor laser chip for measuring an operating temperature. Precisely and/or locally solved measurement of the operating temperature of the laser are possible. One or more temperature sensors may be placed and fastened directly onto the laser chip or in a hole of the laser chip by welding, especially with Nd-YAG-laser light or light with similar characteristics. Fine equalization of temperature may be carried out, for example, by Peltier elements, components of the Peltier elements being mounted directly onto the laser chip. A cascaded arrangement of thermoelements and Peltier elements on a laser chip is also provided for.